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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Bertram et al.	:	Before the Examiner: Huynh, B.
Serial No.: 09/143,967	:	Group Art Unit: 2173
Filed: August 31, 1998	:	IBM Corporation
Title: MOBILE CLIENT COMPUTER PROGRAMMED TO PREDICT INPUT	:	Intellectual Property Law Department 972/B656 P.O. Box 12195 Research Triangle Park, NC 27709

May 1, 2001

**APPEAL BRIEF**

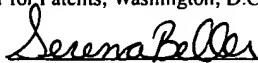
Box AF  
Assistant Commissioner for Patents  
Washington, D. C. 20231

I. **REAL PARTY IN INTEREST**

The real party in interest is International Business Machines Corporation, which is the assignee of the entire right, title and interest in the above-identified patent application.

**CERTIFICATION UNDER 37 C.F.R. § 1.8**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Box AF, Assistant Commissioner for Patents, Washington, D.C. 20231, on May 1, 2001.



Signature

Serena Beller

(Printed name of person certifying)

**II. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to appellants, appellants' legal representative or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**III. STATUS OF CLAIMS**

Claims 37-72 are pending in the Application. Claims 37-72 stand rejected.

**IV. STATUS OF AMENDMENTS**

The Applicants' response to the Office Action having a mailing date of December 15, 2000 has been considered, but it does not place the application in condition for allowance because the Applicants' arguments were deemed unpersuasive.

**V. SUMMARY OF INVENTION**

A mobile client system is a system without a wireline connection between a personal computer system and a supporting server. See Specification, page 5, lines 3-5. Such systems may require form filling capabilities which may implement "forms widget." See Specification, page 6, lines 1-2. As used herein, a "widget" is a small tool or component of code on a display which accomplishes a specific task. See Specification, page 6, lines 5-7. For example, a forms widget may supply a character string for a particular data or information field in a form which is in use. See Specification, page 6, lines 7-8. An example might be a forms widget to supply a two letter state identifier for a particular field in a form which requires an address. See Specification, page 6, lines 8-10. The forms widget, in this instance, would select from among the fifty combinations of two letters adopted by the United States Postal Service to identify the states of the United States. See Specification, page 6, lines 10-12. In the example given, the list from which the data is to be supplied is restrained. See Specification, page 6, lines 12-13. In other examples, such as a name field

for an address form, the list may be essentially unrestrained and must be open to the possibility of additions or manual entry apart from any preselected list. See Specification, page 6, lines 13-16.

The mobile client system may be configured to use predictive widgets in a form filling application. See Specification, page 6, lines 18-20. A predictive widget is one in which a predictive list is used to provide one or both of a predictive default for entry into a field or a predictive fill for the field. See Specification, page 6, lines 20-21. The predictive widget may respond intelligently to use of a form filling application by a user of a system and thus improve user productivity. See Specification, page 6, lines 22-23.

In one embodiment, the predictive widget may use frequency and recency to predict the user's choice. See Specification, page 19, lines 16-17. Each predictive widget may contain a predictive list, the list of prior or predetermined entries for that widget. See Specification, page 19, lines 17-18. The predictive list may contain a record of each entry, so that it can analyze both the frequency and recency of matching entries. See Specification, page 19, lines 18-20.

A predictive widget may use its predictive list in two ways. See Specification, page 19, line 23. First, the widget may use the list to establish a predictive default. See Specification, page 19, lines 23-24. The predictive default may set the initial state of the widget when a form is opened for use. See Specification, page 19, lines 24-25. Second, the widget may use the list to establish a predictive fill for the field in question. See Specification, page 19, lines 25-26. That is, when a field is selected for filling and a user begins the actions of entering data for the field, the initial few characters entered are used to predict the entirety of the data required to fill the field and a suggestion is made for the entire entry. See Specification, page 19, line 26 - page 20, line 2.

In one embodiment, both the predictive default and the predictive fill may use frequency, recency or a combination of the two. See Specification, page 21, line 27 - page 22, line 2. Predictive defaults and predictive fill may use the same predictive list. See Specification, page 22, line 2. However, the two function may use different balances of frequency and recency. See Specification, page 22, lines 2-3. This is illustrated in Figure 10 by the different fulcrum or pointer positions on the "F+R" balance beams. See Specification, page 22, lines 3-5.

In one embodiment, predictive fill may display several of the top items in its list. See Specification, page 23, line 8. When the user types a letter, predictive fill may complete the field with the most likely value. See Specification, page 23, line 8-9. However, it also displays the top five most likely values in a list on the screen. See Specification, page 23, line 10. The list is updated with each character the user enters. See Specification, page 23, lines 10-11. The user can select any value from the list. See Specification, page 23, lines 11-12. Predictive fill may display the list even before the user types anything, while the field still contains the predictive default. See Specification, page 23, lines 12-13. An example of this operation is shown in Figure 11, where a predictive fill list is displayed to the left of a keyboard display. See Specification, page 23, lines 13-15.

In another embodiment, the presentation of possible data entries in a predictive list may partake of both characteristics of recency and frequency where the entries at the beginning of a sequential list may be assigned for recency determination only. See Specification, page 27, lines 12-17. The remainder of the list may have entries assigned positions in the sequence based on frequency only. See Specification, page 27, lines 17-18. Thus in displaying the list for a predictive fill or predictive default, the first few entries displayed would be based on the most recent entries selected by a user, while entries displayed further down the list would be displayed based on the frequency with which those

entries were selected during past use of the application. See Specification, page 27, lines 18-22.

VI. ISSUES

A. Are claims 37-72 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Capps (U.S. Patent No. 5,666,502) in view of Dipaolo et al. (U.S. Patent No. 5,367,619) (hereinafter "Dipaolo")?

B. Are claims 46, 58 and 70 properly rejected under 35 U.S.C. §103(a) as being unpatentable over Luciw (U.S. Patent No. 5,390,281)?

VII. GROUPING OF CLAIMS

Claims 1, 2 and 3 form a first group.

Claims 4, 5 and 6 form a second group.

Claims 7, 8, 9 and 11 form a third group.

Claims 12, 13, 14, 16 and 18 form a fourth group.

Claims 19, 20 and 21 form a fifth group.

Claims 22, 23 and 24 form a sixth group.

Claims 10, 15 and 17 should not be grouped together and should each be considered separately.

The reasons for these groupings are set forth in Applicants' arguments in Section VIII.

VIII. ARGUMENT

A. Claims 37-72 are not properly rejected by 35 U.S.C. §103(a) as being unpatentable over Capps in view of Dipaolo

A *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. See M.P.E.P. §2142. The motivation or suggestion to combine references must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. See *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). The showings must be clear and particular. See *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.* Furthermore, the references must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. See *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984); M.P.E.P. § 2141.02.

In order to reject under 35 U.S.C. §103, therefore, the Examiner must provide a proper motivation for combining or modifying the references. See M.P.E.P. §2142; *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457-1458 (Fed. Cir. 1998). The Examiner recites that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Dipaolo's teaching of automatic filling a data field to Capps for filling the data field with the most possible data entry from the list. Motivation of the combining is for the advantage of automatic filling of the data field without action by the user." See Office Action (dated August 2, 2000), Page 4.

There is no motivation to combine Capps with Dipaolo as there is no suggestion or motivation in Capps or Dipaolo or their combination to ease the filling of data fields in Capps by *automatic filling* when fields have only *one valid data entry* and therefore one of

ordinary skill would not be motivated to combine the references. Capps teaches that "the *historical list contains the most recently and/or frequently used data values* for the data field that the user is inputting data. Preferably, the *historical list is displayed over a form* also being displayed that requires the data input into its one or more of its fields. *By using the historical lists a user is able to enter data with a greater ease of use than previously obtainable.*" See Abstract. Capps further teaches that "in any case, when the user seeks to enter data into the name field 184, the *user can click, tap or otherwise select the history list indicator 186 to obtain the history list for names.* Preferably, each history list is associated with a field class. The input fields of a form then designate the field class associated therewith." See Column 10, Lines 60-66. Dipaolo teaches that "fields which have only *one valid data entry* which is dependent upon entries made for designated other fields may be *designated automatically.*" See Column 2, Lines 50-53. As interpreted by the Applicants, Dipaolo specifically limits automatic filling of fields to *those fields with only one defined data entry.* That is, as interpreted by the Applicants, Dipaolo automatically enters the data of a specific data field *when there can only be one valid entry.* As stated above, *the references must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.* See *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984); M.P.E.P. § 2141.02. *Therefore, the automatic filling feature of Dipaolo may not be considered independently from the fact that the automatic filling feature is limited to filling those fields with only one defined data entry.* As interpreted by the Applicants, the purpose of having a *historical list in Capps is to provide a list of a plurality of valid data entries* the user may select. There is not just one valid entry. Therefore, there is *no motivation to combine Capps with Dipaolo as there would be no automatic filling because the fields have more than one valid entry.*

Furthermore, if the proposed modification or combination of the prior art would *change the principle of operation of the prior art invention being modified*, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. See *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Furthermore, if the proposed modification would *render the prior art invention being modified unsatisfactory for its intended purpose*, then there is no suggestion or motivation to make the proposed modification. See *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). As stated above, Capps teaches that "*the historical list contains the most recently and/or frequently used data values* for the data field that the user is inputting data. Preferably, the *historical list is displayed over a form* also being displayed that requires the data input into its one or more of its fields. *By using the historical lists a user is able to enter data with a greater ease of use than previously obtainable.*" See Abstract. Capps further teaches that "in any case, when the user seeks to enter data into the name field 184, the *user can click, tap or otherwise select the history list indicator 186 to obtain the history list for names*. Preferably, each history list is associated with a field class. The input fields of a form then designate the field class associated therewith." See Column 10, Lines 60-66. Dipaolo teaches that "fields which have only *one valid data entry* which is dependent upon entries made for designated other fields may be *designated automatically*." See Column 2, Lines 50-53. As stated above, *the references must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention*. See *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984); M.P.E.P. § 2141.02. *Therefore, the automatic filling feature of Dipaolo may not be considered independently from the fact that the automatic filling feature is limited to filling those fields with only one defined data entry.* As interpreted by the Applicants, the *purpose or principle of operation* of Capps having a *historical list* is to provide a list of a plurality of *valid data entries* the user may select. By modifying Capps to automatically fill in those fields with only one defined data entry Capps would have no need to provide a historical list

of possible valid data entries for the user to select. That is, the modification to Capps would *change the principle of operation in Capps* and subsequently render the operation of Capps to *perform its purpose unsatisfactory*.

Capps and Dipaolo, taken singly or in combination, do not teach or suggest "exercising a *predictive widget* to *supply a data entry* for a defined data field" as recited in claims 37, 49 and 61. Dipaolo teaches that "*fields which have only one valid data entry* which is dependent upon entries made for designated other fields *may be designated automatically*." See Column 2, Lines 50-53. As interpreted by the Applicants, Dipaolo specifically limits automatic filling of fields to *those fields with only one defined data entry*. That is, as interpreted by the Applicants, Dipaolo automatically enters the data of a specific data field *when there can only be one valid entry*. When there can only be one valid entry in the data field, there is *nothing predictive* about what the entry of that specific data field should be.

Capps and Dipaolo, taken singly or in combination, do not teach or suggest "exercising a *predictive widget* to *supply one of a predictive default and a predictive fill selected from the predictive list* as a data entry for the defined data field" as recited in claims 48, 60 and 72. Capps teaches that "*the historical list contains the most recently and/or frequently used data values* for the data field that the user is inputting data." See abstract. Dipaolo teaches that "*fields which have only one valid data entry* which is dependent upon entries made for designated other fields *may be designated automatically*." See Column 2, Lines 50-53. As interpreted by the Applicants, Dipaolo specifically limits automatic filling of fields to *those fields with only one defined data entry*. That is, as interpreted by the Applicants, Dipaolo automatically enters the data of a specific data field *when there can only be one valid entry*. As interpreted by the Applicants, a control program implementing Dipaolo's automatic filling feature would not be able to *supply a predictive default and a*

*predictive fill selected from the predictive list* as a data entry for the defined data field because the data field has more than one valid data entry with which the program selects from the predictive list. That is, the control program supplies an entry from the predictive list that *most likely* will be selected by the user but may not be the entry the user would have selected.

Capps and Dipaolo, taken singly or in combination, do not teach or suggest that "when the control program is executing on the processor, in storing a predictive list and *selecting a predictive default entry from the predictive list* based on a predetermined algorithm" as recited in claims 39, 51 and 63 and similarly in claims 40, 41, 42, 52, 53, 54, 64, 65 and 66. Capps teaches that "the *historical list contains the most recently and/or frequently used data values* for the data field that the user is inputting data." See abstract. Capps further teaches that "in any case, when the user seeks to enter data into the name field 184, the user can click, tap or otherwise *select the history list indicator 186 to obtain the history list for names*. Preferably, each history list is associated with a field class. The input fields of a form then designate the field class associated therewith. See Column 10, Lines 60-66. Dipaolo teaches that "*fields which have only one valid data entry* which is dependent upon entries made for designated other fields *may be designated automatically*." See Column 2, Lines 50-53. As interpreted by the Applicants, Dipaolo specifically limits automatic filling of fields to *those fields with only one defined data entry*. That is, as interpreted by the Applicants, Dipaolo automatically enters the data of a specific data field *when there can only be one valid entry*. As interpreted by the Applicants, a control program implementing Dipaolo's automatic filling feature would not be able to *select a predictive default entry from a predictive list* based on a predetermined algorithm because the data field has more than one valid data entry with which the program selects from the predictive list. That is, the control program selects an entry from the predictive list that *most likely* will be

selected by the user but may not be the entry the user would have selected. Hence, there is more than one valid entry.

Capps and Dipaolo, taken singly or in combination, do not teach or suggest that "when the computer program is executing on the processor, in *selecting a data entry from the predictive list based upon the recency of use of listed data entries*" as recited in claims 43, 55 and 67. Capps and Dipaolo, taken singly and in combination, do not teach or suggest that "when the computer program is executing on the processor, in *selecting a data entry from the predictive list based upon the frequency of use of listed data entries*" as recited in claims 44, 56 and 68. Capps and Dipaolo, taken singly and in combination, do not teach or suggest that "when the computer program is executing on the processor, in *selecting a data entry from the predictive list based upon a user selected weighted determination of the recency and frequency of use of listed data entries*" as recited in claims 45, 57 and 69. Capps teaches that "the history list 200 is the history list associated with the field class 'full name' and includes five (5) names of persons that were most recently and/or frequently used on the computer system." See Column 11, Lines 3-7. As interpreted by the Applicants, Capps simply teaches a history list with entries that were most recently and/or frequently used *but not a program selecting an entry from a predictive list based upon recency, frequency or a user selected weighted determination of the recency and frequency of use of the listed data entries*. Dipaolo teaches that "fields which have only one valid data entry which is dependent upon entries made for designated other fields *may be designated automatically*." See Column 2, Lines 50-53. As interpreted by the Applicants, Dipaolo specifically limits automatic filling of fields to *those fields with only one defined data entry*. That is, as interpreted by the Applicants, Dipaolo automatically enters the data of a specific data field *when there can only be one valid entry*. As interpreted by the Applicants, a control program implementing Dipaolo's automatic filling feature would not be able to *select a data entry from the predictive list based upon the recency or frequency of use or based upon a user*

*selected weighted determination* because the data field has more than one valid data entry with which the program selects from the predictive list. That is, the control program selects an entry from the predictive list that *most likely* will be selected by the user but may not be the entry the user would have selected.

Capps and Dipaolo, taken singly or in combination, do not teach or suggest that "storing the predictive list as a sequence of possible data entries and in ordering the sequence by positioning a *leading portion of the sequence based on the recency of use of listed data entries and a trailing portion of the sequence based on the frequency of use of listed data entries*" as recited in claims 46, 58 and 70. Capps teaches that "in this example, the name 'Diane Penn' was displayed before the name 'Steve Smith' because it was the *most recently used item* within the table 202 and the *relative difference in the frequencies of usage were not substantial enough to list them in the opposite order.*" See Column 11, Lines 47-51. Furthermore, Capps teaches that "lastly, the name 'Mary Kay' is placed in the history list 200 because within the history table 202, the name '*Mary Kay*' was *last in time* and its frequency is not substantially greater than other entries." See Column 11, Lines 58-61. As interpreted by the Applicants, the history list in Capps lists the order of names according to recency where the name in the top of the list is the most recent and the name on the bottom of the list is the least recent. Capps does not teach a *trailing portion of the sequence based on the frequency of use*. Furthermore, as interpreted by the Applicants, 'Steve Smith' would be placed before 'Diane Penn' if the frequency of usage of 'Steve Smith' was substantially greater than the frequency of usage of 'Diane Penn.' Therefore, Capps does not teach a *leading portion of the sequence based on the recency of use of listed data entries*. Furthermore, the Office Action (dated December 15, 2000) stated that "it is noted that the list is ordered based on a combination of recency and frequency, however, it would have been *obvious to one of skill in the art, at the time the invention was made, to separate the list into recency-of-use portion and frequency-of-use portion. Making a given structure*

*separable would have been obvious to one skilled in the art* (Nerwin v. Erlichman, 168 USPQ 177, 179 (PTO Bd. Of Int. 1969))." See Office Action (dated December 15, 2000), Page 4. Applicants respectfully *contest that a historical list constitutes a structure*. Applicants respectfully contest the Examiner's assertion that it would have been obvious to separate the list into a recency-of-use portion and a frequency-of-use portion. Furthermore, assuming arguendo that it would have been obvious to separate the list into recency-of-use portion and frequency-of-use portion, the Examiner has failed to support the proposition that it would have been obvious *to modify Capps* to separate the list into recency-of-use portion and frequency-of-use portion. The Examiner must submit objective evidence to support that proposition. See *In re Kotzab* at 1316-17; M.P.E.P. §2144.02.

As a result of the foregoing, Applicants respectfully assert that the Examiner's *prima facie* case of obviousness is not taught or suggested by the cited prior art since there are numerous claim limitations not taught or suggested in the cited prior art, and thus one skilled in the art would not have been able to create the claimed invention in view of the cited prior art.

B. Claims 46, 58 and 70 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Luciw

A *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to modify the prior art reference to make the claimed inventions. See M.P.E.P. §2142.

Therefore, in order to reject under 35 U.S.C. §103, the *Examiner must provide a proper motivation for modifying the reference Luciw*. See M.P.E.P. §2142; *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457-1458 (Fed. Cir. 1998). However, *the Examiner has failed to provide any motivation for modifying Luciw*. Therefore, the Examiner has not presented a *prima facie* case of obviousness.

Furthermore, claim 46 which depends from claim 42 is patentable over Luciw for at least the reasons stated in the arguments presented in the above section in regards to claim 42. Claim 58 which depends from claim 54 is patentable over Luciw for at least the reasons stated in the arguments presented in the above section in regards to claim 54. Claim 70 which depends from claim 66 is patentable over Luciw for at least the reasons stated in the arguments presented in the above section in regards to claim 66.

Furthermore, Luciw does not teach or suggest that "storing the predictive list as a sequence of possible data entries and in ordering the sequence by positioning a *leading portion of the sequence based on the recency of use of listed data entries and a trailing portion of the sequence based on the frequency of use of listed data entries*" as recited in claims 46, 58 and 70. The Office Action (Paper No. 3 dated August 2, 2000) states that Luciw fails to "clearly teach that the giving more weight to the recency of usage such that the list comprises a leading portion based on the recency of use and a trailing portion based on frequency of use." See Office Action (Paper No. 3 dated August 2, 2000), Page 8. The Office Action (Paper No. 3 dated August 2, 2000) further states that "giving more weight to the recency of usage would have been an obvious design preference." See Office Action (dated August 2, 2000), Page 8. Applicants respectfully contest the Office Action's assertion that it would have been obvious to give more weight to the recency of usage. Furthermore, assuming arguendo that it would have been obvious to give more weight to the recency of usage, the *Examiner has failed to provide object evidence* to support the proposition that it

would have been obvious *to modify Luciw* to give more weight to the recency of usage. The Examiner must submit objective evidence to support that proposition. See *In re Kotzab* at 1316-17; M.P.E.P. §2144.02.

As a result of the foregoing, Applicants respectfully assert that the Examiner's *prima facie* case of obviousness is not taught or suggested by the cited prior art since there are numerous claim limitations not taught or suggested in the cited prior art, and thus one skilled in the art would not have been able to create the claimed invention in view of the cited prior art.

IX. CONCLUSION

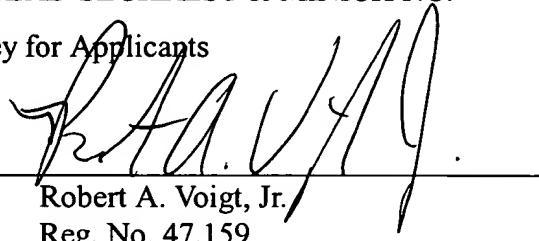
Applicants respectfully assert that the claims are patentable over the cited prior art.

Respectfully submitted,

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## APPENDIX

1       37. A mobile client computer comprising:  
2           a housing sized to be held and manipulated by the hand of a user;  
3           a processor mounted within the housing for processing digital data;  
4           memory mounted within the housing for storing digital data and coupled to the processor;  
5           a display mounted in the housing and coupled to the processor and the memory for  
6           displaying information derived from digital data processed by the processor;  
7           an input digitizer mounted in the housing and overlaying the display, the digitizer  
8           being coupled to the processor for input of digital data by a user; and  
9           a control program stored in the memory and accessible by the processor for directing  
10           the processing of digital data by the processor;  
11           the control program and the processor cooperating, when the control program is  
12           executing on the processor, in  
13               a) displaying a form defining data fields; and  
14               b) exercising a predictive widget to supply a data entry for a defined data field.

1       38. The mobile client computer according to Claim 37, wherein the control program and  
2           the processor cooperate, when the control program is executing on the processor, in  
3           exercising the predictive widget to supply a predictive default entry for the defined data field.

1       39. The mobile client computer according to Claim 37, wherein the control program and  
2           the processor cooperate, when the control program is executing on the processor, in storing  
3           a predictive list and selecting a predictive default entry from the predictive list based on a  
4           predetermined algorithm.

1       40. The mobile client computer according to Claim 37, wherein the control program and  
2       the processor cooperate, when the control program is executing on the processor, in  
3       exercising the predictive widget to supply a predictive fill entry for the defined data field.

1       41. The mobile client computer according to Claim 40, wherein the control program and  
2       the processor cooperate, when the control program is executing on the processor, in storing  
3       a predictive list and selecting a predictive fill entry from the predictive list based on a  
4       predetermined algorithm.

1       42. The mobile computer according Claim 37, wherein the control program and the  
2       processor cooperate, when the control program is executing on the processor, in storing a  
3       predictive list and selecting a data entry from the predictive list based on a predetermined  
4       algorithm.

1       43. The mobile client computer according to Claim 42, wherein the control program and  
2       the processor cooperate, when the control program is executing on the processor, in selecting  
3       a data entry from the predictive list based upon the recency of use of listed data entries.

1       44. The mobile client computer according to Claim 42, wherein the control program and  
2       the processor cooperate, when the control program is executing on the processor, in selecting  
3       a data entry from the predictive list based upon the frequency of use of listed data entries.

1       45. The mobile client computer according to Claim 42, wherein the control program and  
2       the processor cooperate, when the control program is executing on the processor, in selecting  
3       a data entry from the predictive list based upon a user selected weighted determination of the  
4       recency and frequency of use of listed data entries.

1       46. The mobile client computer according to Claim 42, wherein the control program and  
2       the processor cooperate, when the control program is executing on the processor, in storing  
3       the predictive list as a sequence of possible data entries and in ordering the sequence by  
4       positioning a leading portion of the sequence based on the recency of use of listed data  
5       entries and a trailing portion of the sequence based on the frequency of use of listed data  
6       entries.

1       47. The mobile client computer according to Claim 42, wherein the control program and  
2       the processor cooperate, when the control program is executing on the processor, in capturing  
3       user entries of data into the defined field and storing captured entries in the predictive list.

1       48. A mobile client computer comprising:

2           a housing sized to be held and manipulated by the hand of a user;

3           a processor mounted within the housing for processing digital data;

4           memory mounted within the housing for storing digital data and coupled to the processor;

5           a display mounted in the housing and coupled to the processor and the memory for

6           displaying information derived from digital data processed by the processor;

7           an input digitizer mounted in the housing and overlaying the display, the digitizer

8           being coupled to the processor for input of digital data by a user; and

9           a control program stored in the memory and accessible by the processor for directing

10          the processing of digital data by the processor;

11          the control program and the processor cooperating, when the control program is

12          executing on the processor, in

13           a) displaying a form defining data fields;

14           b) capturing user entries of data into a defined field;

15           c) storing captured user entries in a predictive list of data entries for the defined

16          data field; and

17           d) exercising a predictive widget to supply one of a predictive default and a

18          predictive fill selected from the predictive list as a data entry for the defined data field.

1       49. A computer comprising:  
2           a housing;  
3           a processor mounted within the housing and processing digital data;  
4           memory mounted within the housing for storing digital data and coupled to the  
5           processor;  
6           a display coupled to the processor and the memory to display information derived  
7           from digital data processed by the processor; and  
8           a control program stored in the memory and accessible by the processor to direct the  
9           processing of digital data by the processor;  
10           the control program and the processor cooperating, when the control program is  
11           executing on the processor, in  
12               a) displaying a form defining data fields; and  
13               b) exercising a predictive widget to supply a data entry for a defined data field.

1       50. The computer according to Claim 49, wherein the control program and the processor  
2           cooperate, when the control program is executing on the processor, in exercising the  
3           predictive widget to supply a predictive default entry for the defined data field.

1       51. The computer according to Claim 50, wherein the control program and the processor  
2           cooperate, when the control program is executing on the processor, in storing a predictive  
3           list and selecting a predictive default entry from the predictive list based on a predetermined  
4           algorithm.

1       52. The computer according to Claim 49, wherein the control program and the processor  
2           cooperate, when the control program is executing on the processor, in exercising the  
3           predictive widget to supply a predictive fill entry for the defined data field.

1       53. The computer according to Claim 52, wherein the control program and the processor  
2       cooperate, when the control program is executing on the processor, in storing a predictive  
3       list and selecting a predictive fill entry from the predictive list based on a predetermined  
4       algorithm.

1       54. The computer according to Claim 49, wherein the control program and the processor  
2       cooperate, when the control program is executing on the processor, in a storing predictive  
3       list and selecting a data entry from the predictive list based on a predetermined algorithm.

1       55. The computer according to Claim 54, wherein the control program and the processor  
2       cooperate, when the control program is executing on the processor, in selecting a data entry  
3       from the predictive list based upon the recency of use of listed data entries.

1       56. The computer according to Claim 54, wherein the control program and the processor  
2       cooperate, when the control program is executing on the processor, in selecting data entry  
3       from the predictive list based upon the frequency of use of listed data entries.

1       57. The computer according to Claim 54, wherein the control program and the processor  
2       cooperate, when the control program is executing on the processor, in selecting a data entry  
3       from the predictive list based upon a user selected weighted determination of the recency and  
4       frequency of use of listed data entries.

1       58. The computer according to Claim 54, wherein the control program and the processor  
2       cooperate, when the control program is executing on the processor, in storing the predictive  
3       list as a sequence of possible data entries and in ordering the sequence by positioning a  
4       leading portion of the sequence based on the recency of use of listed data entries and a  
5       trailing portion of the sequence based on the frequency of use of listed data entries.

1        59. The computer according to Claim 54, wherein the control program and the processor  
2        cooperate, when the control program is executing on the processor, in capturing user entries  
3        of data into the defined field and storing captured entries in the predictive list.

1       60. A computer comprising:  
2           a housing;  
3           a processor mounted within the housing and processing digital data;  
4           memory mounted within the housing for storing digital data and coupled to the  
5       processor;  
6           a display coupled to the processor and the memory to display information derived  
7       from digital data processed by the processor; and  
8           a control program stored in the memory and accessible by the processor to direct the  
9       processing of digital data by the processor;  
10          the control program and the processor cooperating, when the control program is  
11       executing on the processor, in  
12           a) displaying a form defining data fields;  
13           b) capturing user entries of data into a defined field;  
14           c) storing captured user entries in a predictive list of data entries for the defined  
15       data field; and  
16           d) exercising a predictive widget to supply one of a predictive default and a  
17       predictive fill selected from the predictive list as a data entry for the defined data field.

1       61. A display generating system comprising:  
2           a housing;  
3           a processor mounted within the housing and processing digital data;  
4           memory mounted within the housing for storing digital data and coupled to the  
5           processor;  
6           the processor and the memory cooperating in supplying digital data driving a display  
7           of visual images; and  
8           a control program stored in the memory and accessible by the processor to direct the  
9           processing of digital data by the processor;  
10           the control program and the processor cooperating, when the control program is  
11           executing on the processor, in  
12               a) displaying a form defining data fields; and  
13               b) exercising a predictive widget to supply a data entry for a defined data field.

1       62. The system according to Claim 61, wherein the control program and the processor  
2           cooperate, when the control program is executing on the processor, in exercising the  
3           predictive widget to supply a predictive default entry for the defined data field.

1       63. The system according to Claim 62, wherein the control program and the processor  
2           cooperate, when the control program is executing on the processor, in storing a predictive  
3           list and selecting a predictive default entry from the predictive list based on a predetermined  
4           algorithm.

1       64. The system according to Claim 61, wherein the control program and the processor  
2           cooperate, when the control program is executing on the processor, in exercising the  
3           predictive widget to supply a predictive fill entry for the defined data field.

1       65. The system according to Claim 64, wherein the control program and the processor  
2       cooperate, when the control program is executing on the processor in storing a predictive list  
3       and selecting a predictive fill entry from the predictive list based on a predetermined  
4       algorithm.

1       66. The system according to Claim 61, wherein the control program and the processor  
2       cooperate, when the control program is executing on the processor, in storing a predictive  
3       list and selecting a data entry from the predictive list based on a predetermined algorithm.

1       67. The system according to Claim 66, wherein the control program and the processor  
2       cooperate, when the control program is executing on the processor, in selecting a data entry  
3       from the predictive list based upon the recency of use of listed data entries.

1       68. The system according to Claim 66, wherein the control program and the processor  
2       cooperate, when the control program is executing on the processor, in selecting a data entry  
3       from the predictive list based upon the frequency of use of listed data entries.

1       69. The system according to Claim 66, wherein the control program and the processor  
2       cooperate, when the control program is executing on the processor, in selecting a data entry  
3       from the predictive list based upon a user selected weighted determination of the recency and  
4       frequency of use of listed data entries.

1       70. The system according to Claim 66, wherein the control program and the processor  
2       cooperate, when the control program is executing on the processor, in storing the predictive  
3       list as a sequence of possible data entries and in ordering the sequence by positioning a  
4       leading portion of the sequence based on the recency of use of listed data entries and a  
5       trailing portion of the sequence based on the frequency of use of listed data entries.

- 1        71. The system according to Claim 66, wherein the control program and the processor
- 2        cooperate, when the control program is executing on the processor, in capturing user entries
- 3        of data into the defined field and storing captured entries in the predictive list.

1        72. A display generating system comprising:  
2                a housing;  
3                a processor mounted within the housing and processing digital data;  
4                memory mounted within the housing for storing digital data and coupled to the  
5                processor;  
6                the processor and the memory cooperating in supplying digital data driving a display  
7                of visual images; and  
8                a control program stored in the memory and accessible by the processor to direct the  
9                processing of digital data by the processor;  
10               the control program and the processor cooperating, when the control program is  
11               executing on the processor, in  
12                a) displaying a form defining data fields;  
13                b) capturing user entries of data into a defined field;  
14                c) storing captured user entries in a predictive list of data entries for the defined  
15                data field; and  
16                d) exercising a predictive widget to supply one of a predictive default and a  
17                predictive fill selected from the predictive list as a data entry for the defined data field.